REMARKS

Upon entry of the Amendment, claims 1-5 are pending in the application. Clams 1 to 3 are amended. Claims 4 and 5 are new.

No new matter is added. Claims 1 to 3 are amended for the purpose of improving the clarity thereof. In any event, support for the amendment to claim 1 can be found in the specification, such as in Example 1. Support for the amendment to claim 2 can be found in the specification, such as on page 4. Support for the amendment to claim 3 can be found in the specification, such as on page 10. Support for new claims 4 and 5 can be found in the specification, such as on page 6, lines 13-15. Entry of the Amendment is respectfully requested.

Claims 1-3 are rejected under 35 U.S.C. § 103, as allegedly being unpatentable over WO 02/051528 to De La Cruz ("Cruz '528") and U.S. Patent No. 6,352,641 to Schmidt *et al.* ("Schmidt '641")

The Examiner contends that Cruz '528 and Schmidt '641 teach or suggest that an effective perforated-part area is at least 1.0 time the inner cross-sectional area of a core tube. With respect to Cruz '528, the Examiner asserts that the assumption of a 20 % opening is a sound assumption and that Cruz '528 need not recognize that the effective perforated part area is a result effective area to motivate a person of ordinary skill in the art to optimize the effective perforate part area.

The rejection relies on hindsight reconstruction. The motivation to modify the reference must be found in the references themselves or in the knowledge generally available to a person of ordinary skill in the art. *See* MPEP § 2143.01. As described above, the Examiner assumes that the permeate spacer disclosed in Cruz '528 is 20 % open to calculate that the cross flow filtration cartridge disclosed in Cruz '528 has an effective perforated part area of at least 1.0 time

the inner cross sectional area of the cross tube. The value of 20 % was taken from Applicants' specification. The Examiner has not provided evidence where Cruz '528 or the prior art teaches or suggests an opening of 20 %. In this regard, it appears that the Examiner has relied on hindsight reconstruction to reject the claims.

Further, it is incorrect to assert that Cruz '528 need not recognize that the effective perforated part area is a result effective variable. MPEP § 2144.05(II)(B) clearly mandates that "a particular parameter must be first be ***recognized*** as a result effective variable . . . before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation." (emphasis added). Moreover, page 2 of the Office Action itself states that discovery of an optimum value of a "result effective variable" in a known process is ordinarily within the skill of the art.

Furthermore, the calculation at page 6 of the Office Action does not provide an effective perforated part area of the element disclosed in Example 5 of Cruz '528. The calculation at page 6 of the Office Action calculates the *surface area* of the central tube thereof, rather than the total area of perforation openings present in a perforated cored tube. The calculation in the Office Action provides the surface area by multiplying the assumed length of the tube where perforations are present (i.e., 10 inches), the outer diameter of the central tube (i.e., 0.6 inches), and π (i.e, 3.14). In contrast, the calculation of the total area of perforations typically involves the number of perforations and the area of each perforation. For example, Example 1 of the specification discloses that a perforated core tube had perforation diameters of 6 mm and a perforation number of 40. In this regard, it is incorrect to use the *surface area* to calculate the effective perforated part area of the element disclosed in Example 5 of Cruz '528. Example 5 of Cruz '528 fails to teach or suggest the claimed effective perforated part area.

With respect to Schmidt '641, Applicants respectfully submit that Schmidt '641 fails to teach or suggest the claimed effective perforated part area. Schmidt '641 does not teach the percentage of openings in its permeate spacers 15. In this regard, Schmidt '641 fails to recognize that an effective perforated part area is a result effective variable, in the same way that Cruz '528 fails to do so.

Further, Schmidt '641 fail to provide the motivation to select an appropriate value for the percentage of openings in its permeate spacers 15. As with the case with Cruz '528, it is a hindsight reconstruction of the claimed invention to select 20 %, because the value of 20 % was taken from Applicants' specification, rather than from Schmidt '641.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant herewith petitions the Director of the USPTO to extend the time for reply to the above-identified Office Action for an appropriate length of time, if necessary. Unless a check is attached, any fee due under 37 C.F.R. § 1.17(a) is being paid via the USPTO Electronic Filing System, or if not paid through EFS, the USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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